

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Applicant's Attorney Edmund J. Walsh (Reg. No. 32,950) on July 10, 2008.

AMENDMENTS TO THE CLAIMS

Listing of the Claims:

Claims 10 and 34-40 have been cancelled.

Claims 1-7, 11-13, 17, 18, 23, 24, 28, and 29 have been amended as follow:

1. (Currently Amended) Apparatus for formatting data change requests in a peer-to-peer, activity-based collaboration system having at least two collaborating computers, each with a local copy of data thereon and wherein the collaborating computers exchange data change requests during a collaboration session for effecting changes to the local copies of data for collaborative activities, the apparatus comprising:

a memory;

a processor;

data change request priority logic for inserting into each data change request priority information that determines an order of execution of data change requests; and

dependency collision resolution logic for inserting into selected data change requests dependency information for resolving a dependency collision between first and second data change requests which both depend for execution on a third data change request

wherein each of the collaborating computers and a user of that collaborating computer are an endpoint and wherein the dependency information comprises, for a data change request:

an identification of data to which the data change request pertains;

endpoint information identifying an endpoint from which the data change request was generated;

a data change request sequence number for the data change request; and

information identifying an endpoint and a data change request sequence number for a prior data change request on which the data change request depends.

2. (Currently Amended) The apparatus of claim 1 ~~wherein each of the collaborating computers and a user of that collaborating computer are an endpoint and~~ wherein the ~~priority information in a data change request comprises a sequence number~~ is generated by [[an]] the endpoint that generated that data change request.

3. (Currently Amended) The apparatus of claim 1, ~~wherein each of the collaborating computers and a user of that collaborating computer are an endpoint and~~ wherein the dependency information in a data change request further comprises characteristics of [[an]] the endpoint that originated that data change request for use in resolving dependency collisions between that data change request and another data change request on the basis of, at least in part, the endpoint characteristics.

4. (Currently Amended) The apparatus of claim 1, wherein the dependency information further comprises a type of data change for use in resolving dependency collisions between ~~a first data change requests request and a second data change request~~ on the basis of, at least in part, the types of the data change type requests.

5. (Currently Amended) The apparatus of claim 1, wherein the dependency information further comprises a type of activity for use in resolving dependency collisions between a first data change request and a second data change request on the basis of, at least in part, the activity type.

6. (Currently Amended) The apparatus of claim 1, wherein ~~each of the collaborating computers and a user of that collaborating computer are an endpoint and wherein the dependency information comprises:~~ the identification information comprises an identification code ~~for identifying data to which a first data change request pertains;~~ endpoint information (endpoint 1) ~~identifying an endpoint from which the first data change request was generated;~~ a data change request sequence number (sequence number 1) ~~for the first data change request;~~ and information identifying an endpoint (endpoint 2) ~~and a data change request sequence number (sequence number 2) for a second data change request on which the first data change request depends.~~

7. (Currently Amended) The apparatus of claim 6, wherein the sequence number information and dependency information are arranged in ~~[[a]]~~ the data change request substantially in the form: sequence number 1 @ endpoint 1: sequence number 2 @ endpoint 2, wherein the sequence number 1 is the sequence of the data change request, the endpoint 1 is the endpoint from which the data change request was generated, the sequence number 2 is the sequence number of the prior data change request and the endpoint 2 is the endpoint from which the prior data change request was generated.

11. (Currently Amended) The apparatus of claim ~~[[10]]~~ 1 wherein the dependency collision resolution logic comprises means for resolving a dependency collision between first and second data change requests based on an order in which endpoints that generated the first and second data change requests joined the collaboration session.

12. (Currently Amended) A method for formatting data change requests in a peer-to-

peer, activity-based collaboration system having at least two collaborating computers, each with a local copy of data thereon and wherein the collaborating computers exchange data change requests during a collaboration session for effecting changes to the local copies of data for collaborative activities, the method comprising:

(a) inserting into each data change request priority information that determines an order of execution of data change requests; and

(b) inserting into selected data change requests dependency information for resolving a dependency collision between first and second data change requests which both depend for execution on a third data change request,

wherein the dependency information comprises, for a data change request:

an identification of data to which the data change request pertains;

endpoint information identifying an endpoint from which the data change request was generated;

a data change request sequence number for the data change request; and

information identifying an endpoint and a data change request sequence number for a prior data change request on which the data change request depends.

13. (Currently Amended) The method of claim 12 wherein each of the collaborating computers and a user of that collaborating computer are an endpoint and wherein the ~~priority information in a data change request comprises a sequence number~~ comprises a sequence number generated by an endpoint that generated that data change request.

17. (Currently Amended) The method of claim 12, wherein each of the collaborating computers and a user of that collaborating computer are an endpoint and wherein the ~~dependency information comprises:~~ identification information comprises an identification code for identifying data to which a first data change request pertains; ~~endpoint information (endpoint 1) identifying an endpoint from which the first data change request was generated;~~ a data change request sequence number (sequence number 1) for the first data change request; and information identifying an endpoint (endpoint 2) and a data change request sequence number (sequence number 2) for a second data change request

~~on which the first data change request depends.~~

18. (Currently Amended) The method of claim 17, wherein the sequence number information and dependency information are arranged in a data change request substantially in the form: sequence number 1 @ endpoint 1: sequence number 2 @ endpoint 2, wherein the sequence number 1 is the sequence of the data change request, the endpoint 1 is the endpoint from which the data change request was generated, the sequence number 2 is the sequence number of the prior data change request and the endpoint 2 is the endpoint from which the prior data change request was generated.

23. (Currently Amended) A computer program product for formatting data change requests in a peer-to-peer, activity-based collaboration system having at least two collaborating computers, each with a local copy of data thereon and wherein the collaborating computers exchange data change requests during a collaboration session for effecting changes to the local copies of data for collaborative activities, the computer program product comprising a computer ~~usable~~ readable medium ~~having for storing~~ computer readable program code thereon, including:

program code for inserting into each data change request priority information that determines an order of execution of data change requests; and

program code for inserting into selected data change requests dependency information for resolving a dependency collision between first and second data change requests which both depend for execution on a third data change request, wherein the dependency information comprises, for a data change request:

an identification of data to which the data change request pertains;

endpoint information identifying an endpoint from which the data change request was generated;

a data change request sequence number for the data change request; and

information identifying an endpoint and a data change request sequence number for a prior data change request on which the data change request depends.

24. (Currently Amended) The computer program product of claim 23 wherein each of the collaborating computers and a user of that collaborating computer are an endpoint and wherein the ~~priority information in a data change request comprises a sequence number~~ comprises a sequence number generated by an endpoint that generated that data change request.

28. (Currently Amended) The computer program product of claim 23, wherein each of the collaborating computers and a user of that collaborating computer are an endpoint and wherein the ~~dependency information comprises:~~ identification information comprises an identification code for identifying data to which a first data change request pertains; endpoint information (endpoint 1) identifying an endpoint from which the first data change request was generated; a data change request sequence number (sequence number 1) for the first data change request; and information identifying an endpoint (endpoint 2) and a data change request sequence number (sequence number 2) for a second data change request on which the first data change request depends.

29. (Currently Amended) The computer program product of claim 28, wherein the sequence number information and dependency information are arranged in a data change request substantially in the form: sequence number 1 @ endpoint 1: sequence number 2 @ endpoint 2, wherein the sequence number 1 is the sequence of the data change request, the endpoint 1 is the endpoint from which the data change request was generated, the sequence number 2 is the sequence number of the prior data change request and the endpoint 2 is the endpoint from which the prior data change request was generated.

Examiner's Statement of Reasons for Allowance

1. This office action is in response to an application filed on July 30, 2003 and was interviewed on July 10, 2008.
2. Applicant amended claims 1-7, 11-13, 17, 18, 23, 24, 28, and 29 and cancelled claims 10 and 34-40.
3. Claims 1-9, and 11-33 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter:

The present invention is directed to a method and an apparatus for formatting data change requests in a peer-to-peer activity-based collaboration system having two collaborating computer, each with a local copy of data thereon and wherein the collaborating computers exchange data change requests during a collaboration session for effecting changes to the local copies of data for collaborating activities. Claims 1, 12, and 23 uniquely identify a distinct feature “data change request priority logic, dependency collision resolution logic which resolving a dependency collision between first and second data change requests which both depend for execution on a third data change request and further, a data change request sequence number for the data change request, and information identifying an endpoint and a data change request sequence number for prior data change request on which the data change request depends ” and in combination with other limitations as set forth in the independent claims. Claims 2-9, 11, 13-22, and 24-33 are allowed due to dependent claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jain et al. U.S. Patent 5,806,075

Richardson et al. U.S. Patent 7,340,502

Bly et al. U.S. Patent 5,220,657

LaRue et al. U.S. Patent 6,449,622

Berkowitz et al. U.S. Patent 5,392,400

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuoc H. Nguyen whose telephone number is 571-272-3919. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Phuoc H Nguyen/
Primary Examiner, Art Unit 2143